CLAIM LIST

1. (original) A side pumped laser comprising:

a) a laser cavity formed between a first and a second reflective surface;

b) said laser cavity having an optical axis;

c) one or more lasing rod located within said cavity along said optical axis;

d) a plurality of diode bars having radiation outlets in optical communication with each lasing rod for supplying electromagnetic radiation to said rod;

e) said electromagnetic radiation propagating through said lasing rod on a plurality of substantially nonintersecting paths;

f) said paths traversing said lasing rod substantially perpendicular to the direction of propagation of energy in the laser cavity.

2. (original) The side pumped laser according to claim 1 wherein said laser is a high energy pulsed laser.

3. (original) The side pumped laser according to claim 2 wherein said plurality of diode bars consists of six (6) or more diode bars and said plurality of substantially nonintersecting paths corresponds to the number of diode bars.

4. (original) The side pumped laser according to claim 3 wherein said rod is cylindrical .

5. (original) The side pumped laser according to claim 4 wherein said plurality of diode bars consists of six (6) to eighteen(18) diode bars.

6. (original) The side pumped laser according to claim 4 wherein said plurality of diode bars consists of nine (9) or more diode bars.

7. (currently amended) The side pumped laser according to claim ~~7~~ 6 wherein said plurality of diode bars consists of nine (9) to eighteen (18) diode bars.

8. (original) The side pumped laser according to claim 4 wherein said bars are oriented around the periphery of said lasing rod.

9. (original) The side pumped laser according to claim 4 wherein said bars are oriented symmetrically around the periphery of said lasing rod.

10. (original) The side pumped laser according to claim 4 wherein said lasing rod is Nd:YLF.

11. (currently amended) The side pumped laser according to claim ~~11~~ 10 wherein lasing rod has a length of 70mm or greater.

12. (currently amended) The side pumped laser according to claim ~~11~~ 10 wherein lasing rod has a length of 90mm or greater.

13. (original) The side pumped laser according to claim 4 wherein said lasing rod is Nd:YAG.

14. (currently amended) The side pumped laser according to claim ~~14~~ 13 wherein lasing rod has a length of 70mm or greater.

15. (currently amended) The side pumped laser according to claim ~~15~~ 14 wherein lasing rod has a length of 90mm or greater.

16. (original) The side pumped laser according to claim 4 further comprising a harmonic crystal located in said cavity to produce a harmonic beam.

17. (currently amended) The side pumped laser according to claim ~~17~~ 16 further comprising a second harmonic crystal located in said cavity to produce a second harmonic beam.

18. (currently amended) The side pumped laser according to claim ~~17~~ 16 further comprising a second and third harmonic crystal located in said cavity to produce a third harmonic output beam harmonic beam.

19. (currently amended) The side pumped laser according to claim ~~17~~ 16 further comprising a second, third and fourth harmonic crystal located in said cavity to produce a fourth harmonic output beam.

20. (original) The side pumped laser according to claim 4 wherein said bars are located along substantially the entire length of the lasing rod.

21. (original) The side pumped laser according to claim 1 further comprising:

g) a tube surrounding said lasing rod, said tube having a high reflective coating surrounding said tube ;

h) said high reflective coating having slits to allow said electromagnetic radiation propagating on said plurality nonintersecting paths pass through said coating.

22. (currently amended) A side pumped laser comprising:

a) a laser cavity formed between a first and a second reflective surface;

b) said laser cavity having an optical axis;

c) one or more lasing rod located within said cavity along said optical axis;

d) a plurality of diode bars having radiation outlets in optical communication with each lasing rod for supplying electromagnetic radiation to said rod;

e) said electromagnetic radiation propagating through said lasing rod on a plurality of substantially nonintersecting paths;

f) said paths traversing said lasing rod substantially perpendicular to the direction of propagation of energy in the laser cavity;

~~The side pumped laser according to claim 1 further comprising~~

g) a hollow tube surrounding said lasing rod for cooling water to flow within said tube to cool said lasing rod;

h) said hollow tube having a high reflective coating said coating reflecting electromagnetic radiation propagating on said plurality of substantially nonintersecting paths for a further~~second~~ pass through said lasing crystal;

i) said high reflective coating having slits aligned with said radiation outlets to allow electromagnetic radiation propagating on said plurality nonintersecting paths to pass through said coating.

23. (currently amended) The side pumped laser according to claim ~~23~~ 22 wherein said reflective coating is a gold.

24. (currently amended) The side pumped laser according to claim ~~24~~ 23 wherein said reflective coating is silver .

25. (original) The side pumped laser according to claim 1 wherein a single lasing rod is located within said cavity.

26. (original) The side pumped laser according to claim 1 wherein two or more lasing rods are located within said cavity.

27. (original) The side pumped laser according to claim 1 wherein two lasing rods are located within said cavity.